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ABSTRACT

The University of New Haven, a private urban institution, has consistently published a strong commitment to service to the "community" and the "New Haven student." This paper tests the degree to which the university complies with its commitment. A social structure of the surrounding communities was extracted from the U.S. Census Reports. The community social structure was statistically compared to a social structure analysis of the university's student body. Results show a reasonable relationship between the community social structure and the student body social structure. Conclusions support the proposition that the university is community oriented. (Author)

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# EVALUATION OF THE SOCIETAL POLICY AND OBJECTIVES OF AN URBAN UNIVERSITY

## SOCIETAL FACTORS

by

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## ABSTRACT

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TABLE OF CONTENTS


| | |
|---|---|
| INTRODUCTION | 1 |
| BACKGROUND AND SIGNIFICANCE | 3 |
| History | 3 |
| Goals and Objectives | 4 |
| University Structure | 4 |
| Significance of the University Objective | 6 |
| Significance of the Study | 7 |
| PROCEDURES | 9 |
| Community Social Structure | 9 |
| Student Body Social Structure | 10 |
| Statistical Procedures | 11 |
| RESULTS | 14 |
| Entering Freshmen-Social Structure | 14 |
| Hypothesis Tests | 14 |
| Graduates-Social Structure | 18 |
| Composite Results | 21 |
| Engineering School Freshmen | 23 |
| Engineering School Graduates | 26 |
| Student's Point of Origin | 27 |
| CONCLUSIONS AND RECOMMENDATIONS | 30 |
| APPENDIX A | 34 |
| APPENDIX B | 35 |
| APPENDIX C | 36 |
| BIBLIOGRAPHY | 39 |

# INTRODUCTION

The University of New Haven is an urban university that is dedicated, by its own published commitment, to "serve the community" and to "serve the individual student of the New Haven area."

This practicum will determine, relative to specific factors, the extent to which the University maintains its commitment to the community and the New Haven student.

## Commitment to Community

The word community refers to the society at large and infers joint participation (Webster). Therefore, if the University is maintaining a policy of commitment to the community, we should expect to find the student body composed of social class elements in approximately the same proportion to one another as in the community. In other words, the University should not be catering to any single social element in gross disproportion to that element's existance in the community social structure.

Moreover, the social class dispersement of incoming freshmen and outgoing graduates should be fairly consistent with each other, otherwise the University may be community oriented relative to incoming students, but more special class oriented relative to graduates.

Of special interest is the University's School of Engineering. They too are subject to the community commitment of the University.

As a result of a statistical analysis of the social class structure of freshmen and graduates, both University wide and of the School of Engineering, this practicum study provides a comparison between the student body's social class structure and the social class structure of the community.

Commitment to New Haven Area Students

If the University, in general, and the School of Engineering maintain a commitment of service to local students, it seems obvious that a large percentage of incoming and graduating students should be native to the New Haven area.

An analysis of incoming freshmen and graduates, relative to area of origin, produced in this study will provide a basis upon which the performance of the University can be judged with respect to its objective of service to local students.

## BACKGROUND AND SIGNIFICANCE

### History

The University of New Haven was founded in 1926 at which time it was authorized by the Connecticut General Assembly to grant the Associate in Science degree. Accreditation of the Associate degree programs was granted in 1948 by the New England Association of Colleges and Secondary Schools.

Bachelor of Science degree programs were first offered by the University in 1958. Two years later, 1960, the first full time day programs were made available in the areas of business and engineering. Accreditation of the Bachelor degree programs was received in 1966.

By 1970, the school's facilities, faculty, and diversification of programs warranted the adoption of University status and the introduction of the University's graduate school.

In 1972 the University's School of Engineering was nationally accredited by the Engineer's Council on Professional Development.

At the present time the University has approximately 2500 full time students, 2500 part time students and 1200 graduate students.

## Goals and Objectives

Down through the entire history of the University the stated objective of the institution has been to serve the community. "As an independent, co-educational college, it has at all times, sought to serve the community" --- this clear commitment to the community appeared in the University's 1967 catalogue. From the same catalogue, "Service to the individual student of the New Haven area is the primary function of New Haven College."

In 1971 the community objective is reaffirmed, "The University has held for its primary function, service to the individual student of the New Haven area. It has a strong sense of responsibility to the community."

## University Structure

Moreover, the structure of the University conforms quite closely to the basic dimensions of the Community College, which are: (1)

A) An open door philosophy

B) Comprehensive programs

C) Student development

D) A teaching institution

E) Community based.

(1) The Junior College - A Positive Perspective
T. O'Banion, University of Illinois

The University has a reputation for admitting freshmen with low high school records and low college entrance test scores. If the student has the initiative and desire, he will be given the opportunity to perform. Approximately 50% of all full time students are receiving financial aid provided by the University.

There are at least thirty-three programs available to students that lead to the Bachelor's degree. (1) All major programs of study are available to evening students through the Division of Continuing Education.

The University maintains a professional counseling and guidance staff, a full time career development officer and a staff of financial aid specialists.

In addition, the University offers the student an elaborate remedial studies facility that concentrates on specific weaknesses of the individual student.

The faculty is equally divided between professionals and acedemics. Fifty percent of the faculty have terminal degrees. The fact is that the University is almost completely void of research, and publications are far and few between. There is no question that the University is a teaching institution.

Since its beginning the school has been located within a few miles of the center of New Haven. Public transportation

(1) See appendix A.

is available. The members of the Board of Governors are local industrial and civic leaders. The President and Provost both began their service to the University as resident teachers.

Therefore, the University has the characteristics of a community institution of higher learning. It publicly and repeatedly commits itself to the community and the New Haven student. It maintains a broad structure that includes a variety of academic programs, remedial studies, student financial aid, student counseling and career guidance.

Significance of the University Objective

Statements of commitment to the community and the maintenance of a student oriented structure amount to a standard of performance that should organize the decisions of the Board of Governors and the implementation of policy by the President.

Actual behavior of the institution is observed by the government and administration and should be regulated to the extent that the standard of performance is maintained. If actual performance does not conform to the standard, corrective action should be installed to cause a re-alignment of activity to the standard. (1) Sometimes a re-alignment is not possible or not desirable, in which case the standard of performance should be changed.

(1) Management - Hodges

Significance of This Study

The purpose of this study is to determine the degree to which the University extends its educational service to all social class elements in the community and the degree to which it provides services to the New Haven student. The question is this--to what extent does the actual performance of the University conform to the stated objectives of service to the community and to the New Haven student? The answer to the question is vital to the successful administration of the University since objectives and administrative policy must coincide.

Einstein demonstrated that everything is relative; therefore, whether or not the University is maintaining its commitment to the community is a relative question. We could compare the degree to which the University services each class element to the degree that other schools service class elements (1) (see appendix B). However, colleges and universities differ widely as to who they prefer to educate. This depends on the purposes and objectives of the institution and is manifested in the admission policies of the college (2).

(1) Wolfle, D. America's Resources of Specialized Talent, table 6, 7.
(2) Fields, R. The Community College Movement, McGraw-Hill.

It seems more meaningful to compare the degree to which the University services each class element relative to the quantitative existence of each class element in the society. With such a comparison as a base, the administration and governing body of the University may draw their own conclusions as to whether or not there is a community orientation.

## PROCEDURES

### Community Social Structure

The social structure of the Connecticut community has been defined by the Census Bureau of the United States Department of Commerce. (1)

All male workers may be subdivided into four main categories:

1) Professional and Managerial
2) Craftsmen and Foremen
3) Operative and Transport
4) Labor and Clerical

Average incomes reported by the Government for each category establishes the class structure of the main divisions of occupations. (2) Average incomes are shown in table 1.

| Occupation Category | Average Income |
|---|---|
| 1) Professional | $ 11,221 |
| 2) Craft | $ 8,745 |
| 3) Operative | $ 7,307 |
| 4) Labor | $ 5,275 |

TABLE 1

(1) Dept. of Commerce, U. S. Government Bureau of Census, Vol. PC (1) 68-Conn 1970

(2) Bureau of Census, Vol. PC (1) 68 1970 - Table 89

The Government carefully defines the specific occupations that make up each of the main categories. Appendix C presents a partial list of the occupations that comprise each category.

The Census Bureau reports the number of male workers in the State of Connecticut relative to each category, therefore the composition of the male work force in percent per category can be calculated and is given in table 2.

| Occupation Category | Percent of Work Force |
|---|---|
| 1) Professional | 38.5 |
| 2) Craft | 23.0 |
| 3) Operative | 18.4 |
| 4) Labor | 20.1 |

Table 2

Table 2 accounts for only full time male workers. Such factors as the unemployed, part time workers, female employees, farm workers, etc. were not included in the calculations. Also service workers and clericals were included in the labor category.

Student Body Social Structure

In order to develop the social class structure of the student body, data as to the occupation of the student's father was taken from the application form of incoming freshmen for the years 1972 and 1973.

Occupational data was also taken from the application form of graduates for the years 1973 and 1974. Similar data on incoming and graduating students was extracted relative to engineering students in order to develop a comparison of the University and Engineering School social composition.

Trial runs were made and it was determined that an average time of 6 minutes were required to identify, find and record one piece of data. At this point it became clear that a statistical sampling of the data would be necessary rather than a complete survey of the data. A complete survey would require some 200 hours.

Statistical Procedure

The design of the statistical technique used in this study rests on the hypothesis that the social class structure of the student body is the same as that of the community. Also, since the population is dichotomous, the standard deviation of the population on a per category basis can be calculated using the Government's reported social composition of the work force.

A sample size, N, can be calculated based on a confidence level of 95% and a precision of 6½%. (1)

$$N = \left[\frac{Z\,S}{d}\right]^2$$

Z = confidence factor

$S = \sqrt{P\,(1-P)}$

P = proportion in population

d = precision

The sample size needed for a confident estimate of the professional class category content of the student body is calculated below (a).

$$N = \left[\frac{1.96\ \sqrt{.385\ (1 - .385)}}{.065}\right]^2 = 216$$

Data was taken on the entering freshman class of 1972-73. Fall semester class reports that identify freshmen by code were entered in a random manner. Approximately 225 student names were extracted and their application forms were pulled from the files of the registrar. Some of the data was unclear or missing to the extent that 210 usable pieces of data were secured.

(a) For occupation categories other than professional, the sample size would reduce since S would be reduced. Therefore the one sample of 211 is sufficient to establish estimates of the occupational composition of the student body relative to all four occupational categories.

(1) Dixon and Massey - Statistical Analysis-McGraw-Hill

Graduation lists for 1973-74 were used to extract 229 pieces of usable data relative to the social class structure of graduates.

Both incoming engineering freshmen and graduates were extracted from the data to be used to identify the social class structure of the Engineering School. The precision of the statistical estimates will reduce since only 80 of the original pieces of data represented engineering students. A 3% drop in precision can be expected in the professional category.

Student records show the geographical location of the parents. Data was taken at random on 237 incoming freshmen and 210 graduates as to the residence of the parents. Results were organized into three categories; local, state, and out-of-state residence.

Local is defined relative to this study as any of eight towns:

| | |
|---|---|
| New Haven | Branford |
| North Haven | Guilford |
| West Haven | Hamden |
| East Haven | Orange |

The composition of the entering freshmen and graduating students relative to geographical point of origin will be expressed as a simple percentage for each of the three categories; local, state or out-of-state.

## RESULTS

### Entering Freshmen - Social Class Structure

The 210 pieces of data on incoming freshmen relative to the occupational category of the student's father produced the social class structure shown in table 3.

| Occupational Class | Student Composition, Percent |
|---|---|
| 1) Professional | 37.6 |
| 2) Craft | 37.0 |
| 3) Operative | 13.0 |
| 4) Labor | 12.4 |

Table 3

### Hypothesis Tests

Each hypothesis will be checked to 95% confidence using a Z statistic with a known standard deviation. If the calculated Z score is between + or - 1.96, the hypothesis will be accepted, otherwise it will be rejected. The designed precision of 6½% will hold only for the professional category; other categories will experience a higher precision due to their lower percent content in the population.

A mass hypothesis is stated while four sub-hypothesis are tested, one for each of the four occupational categories. Sample calculations will be shown only for the first mass hypothesis; thereafter, only the results of the calculations will be given.

Hypothesis A: The social class structure of incoming freshmen is the same as the social class structure of the

community.

Test A-1: Professional Category

$$S = (P(1-P))^{1/2} = (.385(1-.385))^{1/2} = .486$$

$$Z = \frac{376 - .385}{.486 / \sqrt{210}} = -.268$$

Accept the hypothesis

Test A-2: Craft Category

$$S = (.23(1-.23))^{1/2} = .42$$

$$Z = \frac{.370 - .230}{.42 / \sqrt{210}} = 2.198$$

Reject the hypothesis

Test A-3: Operative Category

$$S = (.184(1 - .184))^{1/2} = .387$$

$$Z = \frac{.130 - .184}{.387 / \sqrt{210}} = -2.023$$

Reject the hypothesis

Test A-4: Labor Category

$$S = (.201(1 - .201))^{1/2} = .400$$

$$Z = \frac{.124 - .201}{.4 / \sqrt{210}} = -2.791$$

Reject the hypothesis

The statistical tests indicate the following:

1) Professional class content of freshmen is the same as the community content.

2) Craft class content of freshmen is significantly higher than the community content.

3) Operative class content of freshmen is significantly lower than the community content.

4) Labor class content of freshmen is significantly lower than the community content.

Figure 1, on the following page, shows the relationship between the social class composition of the community and the social class structure of incoming freshmen.

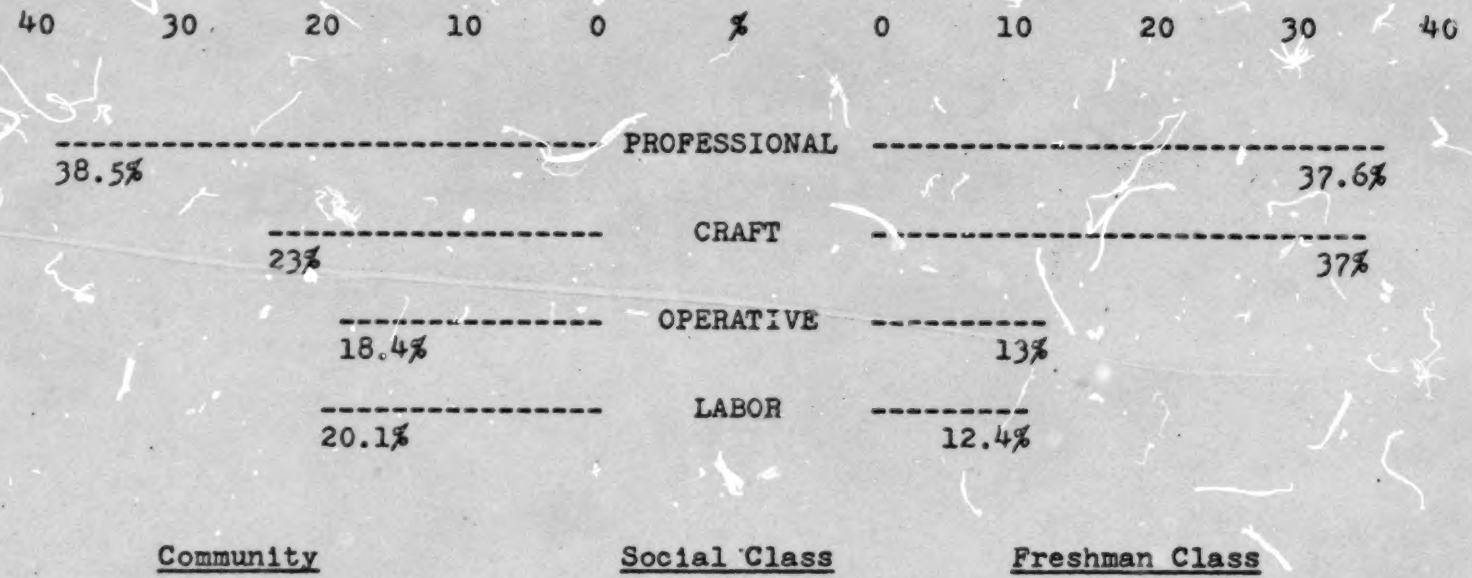

40 30 20 10 0 % 0 10 20 30 40
PROFESSIONAL
38.5%
37.6%
CRAFT
23%
37%
OPERATIVE
18.4%
13%
LABOR
20.1%
12.4%
Community
Social Class
Freshman Class

FIGURE 1

Graduates

Analysis of 229 pieces of data taken on the graduating class of 1973-74 produced the social class structure given in table 4.

| Occupational Class | Student Composition-Percent |
|---|---|
| 1) Professional | 42.8 |
| 2) Craft | 31.0 |
| 3) Operative | 17.5 |
| 4) Labor | 8.7 |

Table 4

Hypothesis B: The social class structure of the graduating students is the same as the social class structure of the community.

Test B-1: Professional Category

S = .486

Z = 1.62

Accept the hypothesis

Test B-2: Craft Category

S = .420

Z = 2.16

Reject the hypothesis

Test B-3: Operative Category

S = .378

Z = -.36

Accept the hypothesis

Test B-4: Labor Category

S = .400

Z = -4.31

Reject the hypothesis

The statistical test of the hypothesis indicates:

1) Professional class content of graduates is the same as the community content.

2) Craft class content of graduates is significantly higher than the community content.

3) Operative class content of graduates is the same as the community content.

4) Labor class content of graduates is significantly lower than the community content.

The comparison of the community social class composition and that of the graduates is shown in Figure 2 on the following page.

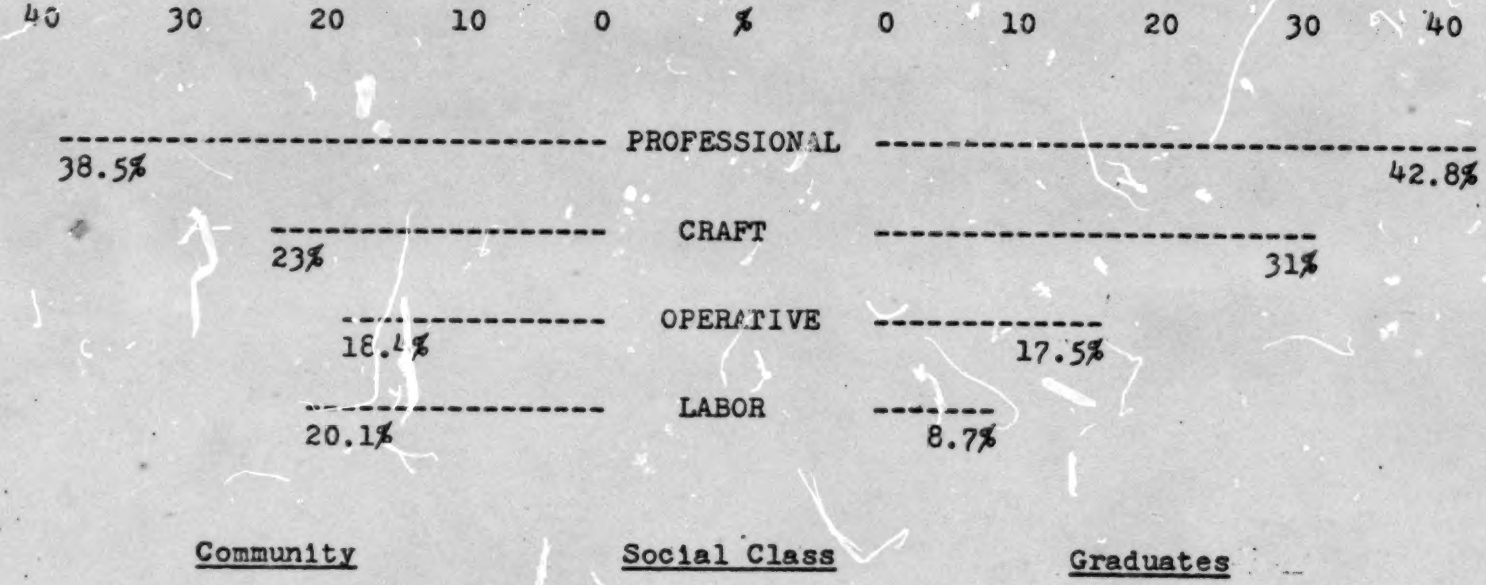

40 30 20 10 0 % 0 10 20 30 40
PROFESSIONAL
38.5%
42.8%
CRAFT
23%
31%
OPERATIVE
18.4%
17.5%
LABOR
20.1%
8.7%
Community
Social Class
Graduates

FIGURE 2

Composite Results

By taking an average between incoming freshmen and graduates, a mean social class structure of the student body may be estimated. Figure 3 presents mean results on the following page.

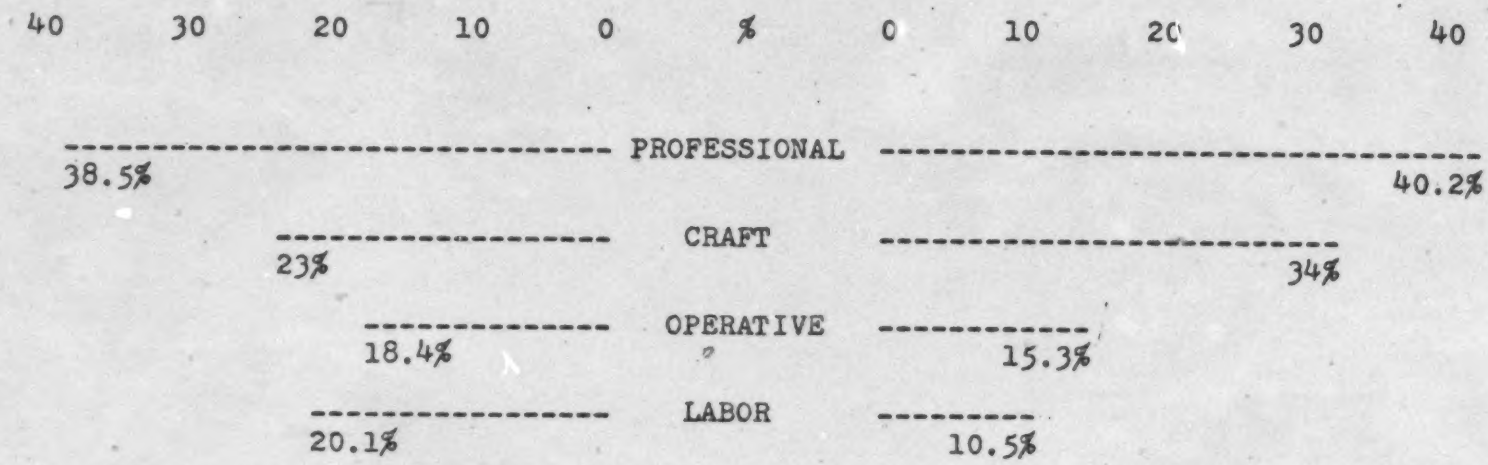

40 30 20 10 0 % 0 10 20 30 40
PROFESSIONAL
38.5%
40.2%
CRAFT
23%
34%
OPERATIVE
18.4%
15.3%
LABOR
20.1%
10.5%
Community
Social Class
Student Body

FIGURE 3

Engineering School Freshmen

Analysis of data taken on freshmen entering the engineering school produced the social class structure shown in table 5.

| Occupational Category | Percent |
|---|---|
| 1) Professional | 43.6 |
| 2) Craft | 41.8 |
| 3) Operative | 5.5 |
| 4) Labor | 9.1 |

Table 5

Hypothesis C: The social class structure of engineering school freshmen is the same as the social class structure of the community.

Test C-1: Professional Category

S = .486

Z = 1.04

Accept the hypothesis

Test C-2: Craft Category

S = .420

Z = 4.47

Reject the hypothesis

Test C-3: Operative Category

S = .378

Z = -3.33

Reject the hypothesis

Test C-4: Labor Category

S = .400

Z = -2.75

Reject the hypothesis

The results of statistical analysis are as follows:

1) Professional class structure of engineering freshmen is the same as the community structure.

2) Craft class structure of engineering freshmen is significantly higher than the community structure.

3) Operative class structure of engineering freshmen is significantly lower than the community structure.

4) Labor class structure of engineering freshmen is significantly lower than the community structure.

Results are graphically displayed in Figure 4 on the following page.

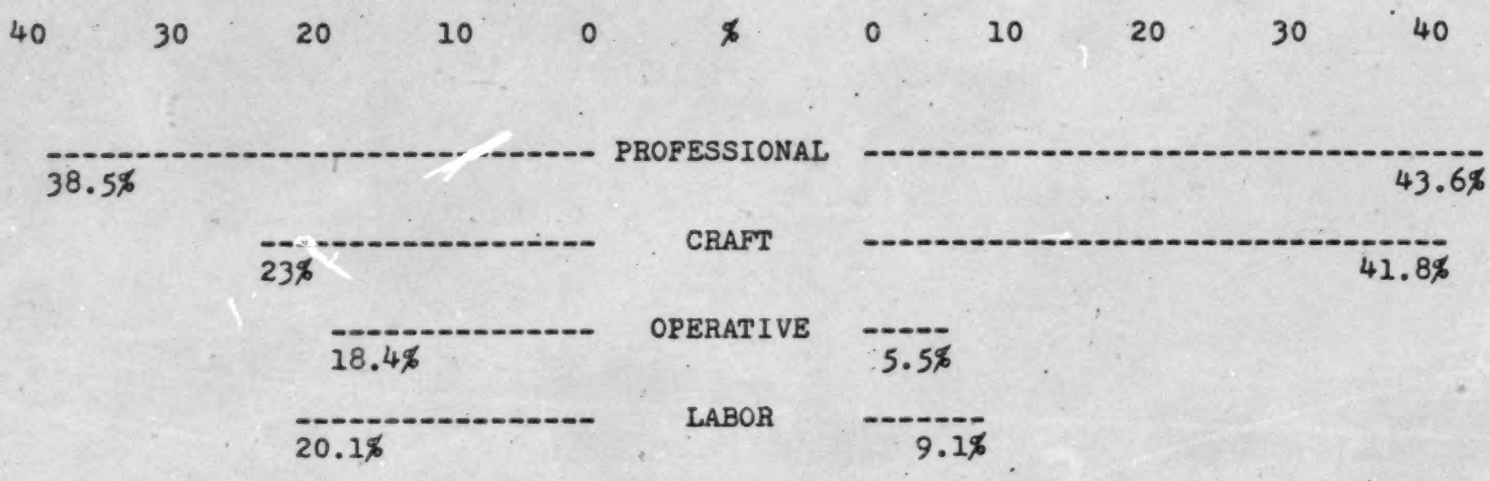

40 30 20 10 0 % 0 10 20 30 40
PROFESSIONAL
38.5%
43.6%
CRAFT
23%
41.8%
OPERATIVE
18.4%
5.5%
LABOR
20.1%
9.1%
Community
Social Class
Engineering Freshmen

FIGURE 4

Engineering School Graduates

The social class structure of engineering school graduates is shown in table 6.

| Occupational Class | Percent |
|---|---|
| 1) Professional | 40.5 |
| 2) Craft | 36.5 |
| 3) Operative | 16.8 |
| 4) Labor | 6.8 |

Table 6

Hypothesis D: The social class structure of engineering school graduates is the same as the social class structure of the community.

Test D-1: Professional Category

S = .486

Z = .41

Accept the hypothesis

Test D-2: Craft Category

S = .420

Z = 3.21

Reject the hypothesis

Test D-3: Operative Category

S = .378

Z = -.56

Accept the hypothesis

Test D-4: Labor Category

S = .400

Z = -3.32

Reject the hypothesis

Results of the analysis are shown in Figure 5 on page 28.

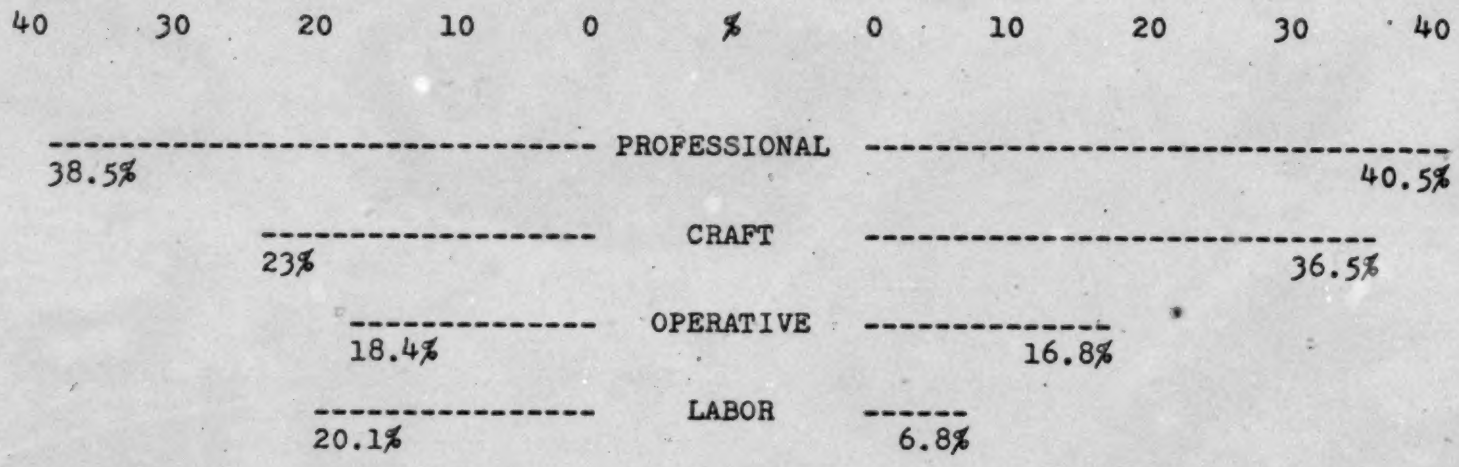
A mean social class structure of the engineering school student body may be estimated by taking an average between the structure of engineering freshmen and the structure of engineering graduates. This was done and results are shown in Figure 6 on page 29.

Student's Point of Origin

Data on the location of the residence of the family of 237 freshmen and 210 graduates produced a percentage structure given in table 7.

| | Freshmen | Graduates |
|---|---|---|
| Local Origin | 48% | 37% |
| State | 39% | 48% |
| Out-of-State | 13% | 15% |

Table 7




Community Social Class Engineering Graduates

FIGURE 5

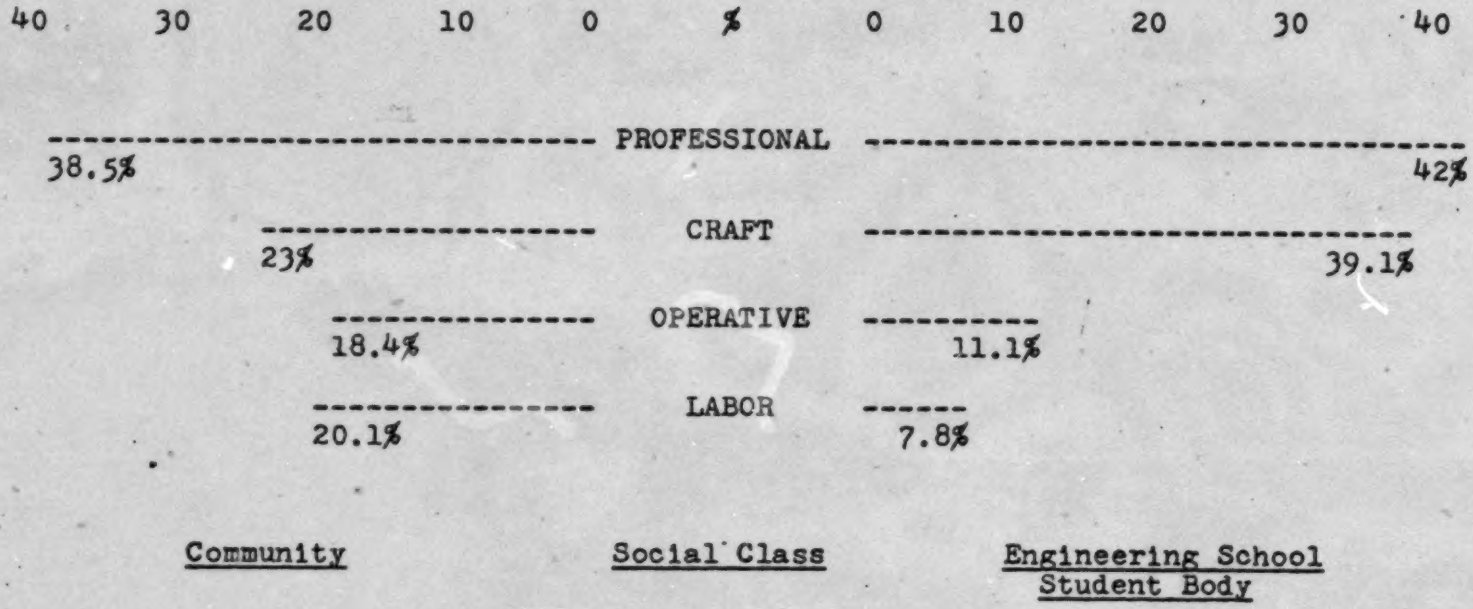

40 30 20 10 0 % 0 10 20 30 40
PROFESSIONAL
38.5%
42%
CRAFT
23%
39.1%
OPERATIVE
18.4%
11.1%
LABOR
20.1%
7.8%
Community
Social Class
Engineering School Student Body

FIGURE 6

## CONCLUSIONS AND RECOMMENDATIONS

### Social Structure - Summary

Seventy-five percent of the day student body at the University of New Haven come from families who are members of the professional and craft social class. The community content of professional and craft social class people amounts to 61%.

While 38% of the community consists of people in the operative and labor social class, their representation in the University's student body is 25%.

### Geographic Structure - Summary

Eighty-five percent of the University's full time students come from families who are residents of Connecticut.

Forty-two percent are from the New Haven area.

### Conclusions by University Officials

Comments by Professor Marvin K. Peterson, President Emeritus of the University of New Haven:

Professor Peterson felt that the social structure of the student body was well balanced between the upper and lower social class elements relative to community comparison. He suggested that the University would perhaps never do as well for the lower classes as a state community college due to the

fact that the University, as a private institution, must rely on tuitions that are much higher than the state schools. Professor Peterson felt that a 25% lower social class content represented a rather outstanding achievement for a private four year institution where high costs are a constant threat to quality community service. Professor Peterson was aware of the high percentage of local students in the student body and pointed out that the University has a higher number of Connecticut residents in its student body than any other private college in the state.

Comments by Professor John Fryer, Director of Transitional Studies and Chairman of the Department of General Studies:

Professor Fryer expressed doubt as to the "community" orientation of the University. He stated that the student body content of lower class elements should be considerably higher than it is in order to justify the "community" commitment of the University.

Professor Fryer felt that the University's high tuition was perhaps the main factor in depressed lower class attendance.

Conclusions by the Author

When you take into consideration the high tuition at the University and the abundance of state schools in the area, the University is doing well in presenting a four ye r college education to lower social class elements in the society. All

of the students coming from lower class families are on financial aid that is procured by the University's administration who spend practically all of their time trying to make financial ends meet.

There is no doubt that the University is community oriented to the extent that it could, due to its organization and structure, extend its services to more lower class students than it does. The main deterrent is money.

Money, as a main problem, is evidenced by the low enrollment of lower social class students in the Engineering School, which is about 6% lower than the University in general. The engineering curriculum is academically very demanding and lower class students, even though they receive tuition cost assistance, must work at least part time in order to live. I am told by students that the engineering curriculum and part time jobs don't go well together.

Recommendations

A private and independent University, available to all who have the desire and determination to engage in higher education, is a vital asset to the maintenance of a free society. Money should not be a deterrent to those who cannot afford to pay. On the same line of reasoning, money should not be a deterrent to those whom the University serves well.

Forty five percent of the students at the University of New Haven are from local communities. Graduates of the University are found in all areas of the local community. Industrial concerns in the area actively absorb graduates, especially graduates of the Engineering School.

It seems reasonable that the local communities who receive great benefit from the University should take a community interest in the institution. By way of local ordinance, the community could produce a fund that would be made available to the University administration for specific purposes such as financial assistance to local students of the lower class who cannot afford a university education.

An ideal association would allow public community college graduates to continue their education at the University via city funds.

However, public money for private education is a cause that few politicians will support since more money means more taxes and less votes.

## APPENDIX A

Programs leading to the Bachelor's degree, offered at the University of New Haven:

| | |
|---|---|
| Biology | Accounting |
| Chemistry | Business Administration |
| Economics | Communications |
| English | Criminal Justice |
| Environmental Studies | Forensic Science |
| History | Finance |
| Political Science | Institutional Management |
| Psychology | International Business |
| Social Welfare | Management Science |
| Sociology | Marketing |
| Music | Operations Management |
| Fire Science | Personnel Management |
| Safety and Health | Public Administration |
| Civil Engineering | Retailing |
| Electrical Engineering | Mechanical Engineering |
| Industrial Engineering | Computer Science |
| Materials Engineering | General Studies |

## APPENDIX B

Estimated distribution of college graduates classified by occupation of father, table 6.7, America's Resources of Specialized Talent, Dael Wolfle.

| Father's Occupation | Percent Among College Graduates |
|---|---|
| Professional and Semi | 22 |
| Managerial | 19 |
| Sales, Clerican and Service | 19 |
| Farm | 9 |
| Skilled, Unskilled, Factory | 31 |

## APPENDIX C

Specific occupations as listed by the Department of Commerce, relative to occupational categories.

Professional Occupational Category

Professional, managerial and kindred workers:

| | |
|---|---|
| Engineers | Foresters |
| Physicians | Lawyers |
| Dentists | Judges |
| Optometrists | Curators |
| Pharmacists | Statisticians |
| Veterinarians | Chemists |
| Dietitians | Geologists |
| Registered Nurses | Physicists |
| Therapists | Astronomers |
| Laboratory Technologists | Operations Research Analysts |
| Dental Hygienist | Labor Relations |
| Health Record Technologists | Clergy |
| Teachers | Psychologists |
| Engineering Technicians | Sociologists |
| Scientific Tachnicians | Social Workers |
| Draftsmen | Counselors |
| Surveyors | Actors |

| | |
|---|---|
| Pilots | Athletes |
| Radio Operators | Authors |
| Embalmers | Photographers |
| Accountants | Public Administration |
| Architects | Bank Officers |
| Computer Programers | Wholesale-Retail Owners |
| Insurance Agents | Brokers |
| | Salesmen |

Craft Occupational Category

Craftsmen, foremen and kindred workers:

| | |
|---|---|
| Laboratory Technicians | Mechanics |
| Engravers | Repairmen |
| Printer's Trades | Machinists |
| Furniture Trades | Carpenters |
| Jewelers | Cabinet Makers |
| Watchmakers | Masons |
| Firemen | Electricians |
| Opticians | Road Builders |
| Piano Tuners | Home Builders |
| Shoe Repair | Bakers |
| Tailors | Typesetters |
| Telephone Linemen | Crane men |

Operative Occupational Category

Operative, transport and kindred workers:

| | |
|---|---|
| Assemblers | Drill Press Operators |
| Inspectors | Lathe Operators |
| Pressers | Weavers |
| Dressmakers | Knitters |
| Seamstress | Welders |
| Packers | Bus Driver |
| Laundry | Rail Conductor |
| Meat Cutters | Delivery Men |
| Butchers | Tow Motor Operators |
| Retail Salesmen | Taxi Cab Drivers |
| Miner | Mailman |

Labor Occupational Category

Labor, service and kindred workers:

| | |
|---|---|
| Construction Labor | Fisherman |
| Freight Handler | Porter |
| Material Handler | Household Services |
| Garbage Collector | Clerical |
| Caretaker | Factory Laborer |

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